Complete Summary

GUIDELINE TITLE

Screening for cognitive impairment and dementia in the elderly.

BIBLIOGRAPHIC SOURCE(S)

Patterson CJ, Gass DA. Screening for cognitive impairment and dementia in the elderly. Can J Neurol Sci 2001 Feb;28(Suppl 1):S42-51. [94 references]

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Cognitive impairment; Dementia

GUIDELINE CATEGORY

Screening

CLINICAL SPECIALTY

Family Practice
Geriatrics
Internal Medicine
Neurology
Psychiatry
Psychology

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Nurses

Physician Assistants
Physicians
Students

GUIDELINE OBJECTIVE(S)

To make recommendations about screening for cognitive impairment among asymptomatic elderly persons in Canada, updating a 1994 report.

TARGET POPULATION

Asymptomatic elderly people in Canada.

INTERVENTIONS AND PRACTICES CONSIDERED

Screening:

1. Inquiry about individual's memory complaints
2. The use of informant descriptions of an individual's cognitive status
3. Screening using the Instrumental Activities of Daily Living
4. The testing of cognition with a mental state examination (e.g., the Mini Mental State Examination [MMSE])

MAJOR OUTCOMES CONSIDERED

- Cognitive performance
- Progression of cognitive impairment to dementia
- Possible negative effects such as labeling
- Sensitivity and specificity of screening tests

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Evidence reviewed in 1994 was updated with a MEDLINE search for the years 1987 to September 2000 using the MeSH headings "mass screening," "geriatric assessment" and "cognitive disorders." Related articles were also searched for further references.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Quality of evidence was rated according to 5 levels:

I - Evidence from at least 1 properly randomized controlled trial (RCT).

II-1 - Evidence from well-designed controlled trials without randomization.

II-2 - Evidence from well-designed cohort or case-control analytic studies, preferably from more than 1 centre or research group.

II-3 - Evidence from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments could also be included here.

III - Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees.

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not applicable

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The 13-member Task Force of experts in family medicine, geriatric medicine, pediatrics, psychiatry and epidemiology used an evidence-based method for evaluating the effectiveness of preventive health care interventions. Recommendations were not based on cost-effectiveness of options. Patient preferences were not discussed.

Background papers providing critical appraisal of the evidence and tentative recommendations prepared by the authors were pre-circulated to the members. Evidence for this topic was presented and deliberated upon in 3 meetings from Jan. 1998 to Oct. 1998. Consensus was reached on final recommendations.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Grades of Recommendation:

A. Good evidence to support the recommendation that the condition be specifically considered in a periodic health examination (PHE).
B. Fair evidence to support the recommendation that the condition be specifically considered in a PHE.
C. Poor evidence regarding inclusion or exclusion of the condition in a PHE, but recommendations may be made on other grounds.
D. Fair evidence to support the recommendation that the condition be specifically excluded from consideration in a PHE.
E. Good evidence to support the recommendation that the condition be specifically excluded from consideration in a PHE.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups
External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

This guideline was peer reviewed as part of the journal publication process. The Canadian Consensus Conference on Dementia also reviewed this evidence and concurred with the recommendations. The U.S. Preventive Services Task Force (USPSTF) offered a similar recommendation in 1996. The Canadian Task Force on the Periodic Health Examination made a similar recommendation in 1994. The Task Force on Health Assessment of the Society of General Internal Medicine recommended inclusion of Screening for Cognitive Impairment in 1989.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Recommendation grades [A, B, C, D, E] and levels of evidence [I, II-1, II-2, II-3, III] are indicated after each recommendation. Definitions of these grades and levels are repeated following the recommendations.

- There is insufficient evidence to recommend for, or against, screening for cognitive impairment in the absence of dementia (Tombaugh & McIntyre, 1992; O'Connor et al., 1989; Kittner et al., 1986; Bleeker et al., 1988) (C, II-2).
- Memory complaints should be evaluated and the individual followed to assess progression (Petersen et al., 1999; Hogan & Ebly, 2000) (B, II-2).
- When caregivers or informants describe cognitive decline in an individual, these observations should be taken very seriously; cognitive assessment and careful follow-up are indicated (Hogan & Ebly, 2000; Jorm & Jacomb, 1989; Jorm, 1996; Jorm et al., 1996; Jorm, 1997) (A, II-2).

Definitions:

Recommendation Grades:

A. Good evidence to support the recommendation that the condition be specifically considered in a periodic health examination (PHE).
B. Fair evidence to support the recommendation that the condition be specifically considered in a PHE.
C. Poor evidence regarding inclusion or exclusion of the condition in a PHE, but recommendations may be made on other grounds.
D. Fair evidence to support the recommendation that the condition be specifically excluded from consideration in a PHE.
E. Good evidence to support the recommendation that the condition be specifically excluded from consideration in a PHE.

Levels of Evidence:

I - Evidence from at least 1 properly randomized controlled trial (RCT).

II-1 - Evidence from well-designed controlled trials without randomization.

II-2 - Evidence from well-designed cohort or case-control analytic studies, preferably from more than 1 centre or research group.

II-3 - Evidence from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments could also be included here.

III - Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- The Mini Mental State Examination (MMSE) has average sensitivity of 83% and average specificity of 82% and is brief and easily applied in a primary care setting.
- Screening populations with mental status questionnaires can identify groups at risk for progression to dementia. Follow-up investigation is necessary to distinguish those who have mild impairment due to physical illness or medication, depression, mental retardation, early dementia, or who are cognitively normal.
- There are effective strategies for managing individuals with established dementia with both supportive and drug therapies. Some drug therapies have produced modest clinical improvements. However the value of these interventions in individuals with cognitive impairment who are not demented, or in those with dementia discovered by screening is not yet known.
- Potential benefits of early detection include providing the chance for individuals and their caregivers to plan ahead, to find social support, housing, power of attorney, etc., but have not been systematically studied.

POTENTIAL HARMS

- Screening presents the risk of mislabeling significant numbers of older individuals with an unpleasant diagnosis, and possibly subjecting them to further unnecessary investigations.
- Given the most optimistic test characteristics of an instrument such as the Mini Mental State Examination and a community prevalence of dementia of 1.6% age 65-74, 6.9% age 75-84 and 17.8% over age 85, the false positive rates (i.e., risk of falsely labeling an individual with dementia) are 93%, 75% and 50% respectively.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Implementation of preventive activities in clinical practice continues to be a challenge. To address this issue, Health Canada established a National Coalition of Health Professional Organizations in 1989. The purpose was to develop a strategy to enhance the preventive practices of health professionals. Two national workshops were held. The first focused on strengthening the provision of preventive services by Canadian physicians. The second addressed the need for collaboration among all health professionals. This process led to the development of a framework or "blueprint for action" for strengthening the delivery of preventive services in Canada (Supply and Services Canada: an Inventory of Quality Initiatives in Canada: Towards Quality and Effectiveness. Health and Welfare Canada, Ottawa, 1993). It is a milestone for professional associations and one that will have a major impact on the development of preventive policies in this country.

In 1991 the Canadian Medical Association spearheaded the creation of a National Partnership for Quality in Health to coordinate the development and implementation of practice guidelines in Canada. This partnership includes the following: the Association of Canadian Medical Colleges, the College of Family Physicians of Canada, the Federation of Medical Licensing Authorities of Canada,

the Royal College of Physicians and Surgeons of Canada, the Canadian Council on Health Facilities Accreditation, and the Canadian Medical Association.

The existence of guidelines is no guarantee they will be used. The dissemination and diffusion of guidelines is a critical task and requires innovative approaches and concerted effort on the part of professional associations and health care professionals. Continuing education is one avenue for the dissemination of guidelines. Local physician leaders, educational outreach programs, and computerized reminder systems may complement more traditional methods such as lectures and written materials.

Public education programs should also support the process of guideline dissemination. In this context, rapidly expanding information technology, such as interactive video or computerized information systems with telephone voice output, presents opportunities for innovative patient education. The media may also be allies in the communication of some relevant aspects of guidelines to the public. All of these technologies should be evaluated.

The implementation of multiple strategies for promoting the use of practice guidelines requires marshaling the efforts of governments, administrators, and health professionals at national, provincial and local levels. It is up to physicians and other health professionals to adopt approaches for the implementation of guidelines in clinical practice and to support research efforts in this direction.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Patterson CJ, Gass DA. Screening for cognitive impairment and dementia in the elderly. Can J Neurol Sci 2001 Feb;28(Suppl 1):S42-51. [94 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1994 Jan (revised 2001)

GUIDELINE DEVELOPER(S)

Canadian Task Force on Preventive Health Care - National Government Agency [Non-U.S.]

SOURCE(S) OF FUNDING

The Canadian Task Force on Preventive Health Care is funded through a partnership between the Provincial and Territorial Ministries of Health and Health Canada.

GUIDELINE COMMITTEE

Canadian Task Force on Preventive Health Care (CTFPHC)

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

The Task Force consisted of experts in family medicine, geriatric medicine, pediatrics, psychiatry and epidemiology.

Authors: Christopher Patterson, MD, FRCPC; David A. Gass, MD

Members of the Canadian Task Force on Preventive Health Care

Chairman: Dr. John W. Feightner, Professor, Department of Family Medicine, University of Western Ontario, London, Ont.

Past Chairman: Dr. Richard Goldbloom, Professor, Department of Pediatrics, Dalhousie University, Halifax, NS.

Members: Drs. R. Wayne Elford, Professor and Chair of Research, Department of Family Medicine, University of Calgary, Calgary, Alta.; Michel Labrecque, Associate Professor and Director of Research, Department of Family Medicine and Center Hospitalier Universitaire de Québec, Laval University, Quebec, Que.; Robin McLeod, Professor, Department of Surgery, Mount Sinai Hospital and University of Toronto, Toronto, Ont.; Harriet MacMillan, Associate Professor, Departments of Psychiatry and Pediatrics and Center for Studies of Children at Risk, McMaster University, Hamilton, Ont.; Jean-Marie Moutquin, Professor, Department of Obstetrics and Gynecology and Saint-François d'Assise Research Center, Laval University, Quebec, Que.; Christopher Patterson, Professor and Head, Division of Geriatric Medicine, Department of Medicine, McMaster University, Hamilton, Ont.; Elaine E.L. Wang, Associate Professor, Departments of Pediatrics and Public Health Sciences, Faculty of Medicine, University of Toronto, Toronto, Ont.

Resource people: Nadine Wathen, Coordinator, and Tim Pauley, Research Assistant, Canadian Task Force on Preventive Health Care, Department of Family Medicine, University of Western Ontario, London, Ont.

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline. This guideline updates and replaces previous recommendations published by the Canadian Task Force on Preventive Health Care (CTFPHC) (In: 1994 update: Screening for cognitive impairment in the elderly. Canadian Task Force on the Periodic Health Examination. Ottawa (Canada): Health Canada; 1994. p. 902-9)

An update is not in progress at this time. The recommendations have been reviewed by the guideline developer within the last five years and are still considered current.

A complete list of planned reviews, updates and revisions is available under the What's New section at the CTFPHC Web site.

GUIDELINE AVAILABILITY

Electronic copies: Selected information is available from the Canadian Task Force on Preventive Health Care (CTFPHC) Web site.

Print copies: Available from Canadian Task Force on Preventive Health Care, 100 Collip Circle, Suite 117, London, Ontario N6G 4X8, Canada; e-mail, ctf@ctfphc.org.

Also available from Health Services Directorate, Health Services and Promotion Branch, Department of National Health and Welfare, Tunney's Pasture, Ottawa ON K1A 1B4, Canada.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Stachenko S. Preventive guidelines: their role in clinical prevention and health promotion. Ottawa: Health Canada, 1994. Available from the Canadian Task Force on Preventive Health Care (CTFPHC) Web site.
- CTFPHC history/methodology. Ottawa: Health Canada, 1997. Available from the CTFPHC Web site.
- Quick tables of current recommendations. Ottawa: Health Canada, 1997. Available from the CTFPHC Web site.

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on December 7, 1999. The information was verified by the guideline developer on February 24, 2000. The summary was updated by ECRI on June 1, 2001. The updated information was reviewed by the guideline developer as of September 7, 2001.

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